



November 29, 2001

Offerors:

Subject: Amendment No. 2 to Request for Proposal No. RAM-2-31235 for "Low Wind Speed Turbine Project"

The following lists questions submitted and answers provided to those questions to date:

1. What provisions are available for including cost share of expenditures prior to the start of the contract?

Answer: There are no provisions for expenditures prior to a contract award.

2. We are preparing a proposal in response to RFP RAM-2-31235, which references NREL's FATE2-P financial modeling software. Can we use this software to develop our COE estimates? If so, how can we obtain a copy of FATE2-P?

Answer: The FATE-2P package was used by NREL/PERI to develop the cost factors (Fixed Charge Rate and discount rates) noted in our Attachment C "Cost of Energy Analysis for Design Tradeoff Studies". Using the formulas and Assumptions provided in Attachment C a developer can estimate a reasonable cost of energy without the use of a complex model such as FATE-2P. The use of FATE-2P is unnecessary for the calculation of the COE. FATE-2P is a very complicated and cumbersome software package that is not available on the internet and is not supported with user documentation. It provides no additional information necessary for performing the calculations, over and above what has been supplied in Attachment C.

3. RFP RAM-2-31235, the Low Wind Speed Turbine project, seems to require a detailed COE for the conceptual study. Since it will be virtually impossible to develop accurate costing at the level of detail specified in the RFP without substantial additional engineering efforts, are we required to develop a COE for the conceptual study? If so, are we required to use the detailed costing specified on pages 17 and 18 of the RFP?

Answer: For the Conceptual Design Studies, the offeror is expected to develop a COE using the formulas in the Attachment C. COE numbers to be provided in the proposal are not expected to be at the same level of detail that will be developed in the Conceptual Design Study. But some COE estimate must be provided in the proposal to indicate the nature of the improvement expected from the proposed concept. It is likely that this will



require an estimate of the Initial Capital Cost that takes the entire turbine capital cost into account. Concerning the detail noted on page 17 and 18, it is not absolutely necessary that the COE calculations include detailed costs for each and every item listed under the Initial Capital Cost Section.

4. Page 21 of Appendix C refers to four types of losses: (1) array, (2) blade soiling, (3) controls and miscellaneous, and (4) collection system losses. Can you please clarify what is meant by the third, controls and miscellaneous losses?

Answer: Controls and miscellaneous losses identified on Page 21, Appendix C may be defined as losses due to inefficiencies in controls operation, such as off yaw operation, or inefficiencies in pitch algorithms. In addition to these controls systems losses, this category is intended to represent any other losses, not yet identified.

Note: The AEP gross number represents power at the base of the tower and should already include losses in the turbine power train

5. FCR: SOW p.16 bullets show FCR at 11.85%, but p.17 equations and text show $FCR=0.1158$; which is it? This number has gone up considerably since RFPs from a few years ago; can you summarize why? Also, I would like to see more detailed breakdown of FCR if possible. Finally, what kind of values would you show for coal, natural gas, and nuclear plants?

Answer: Fixed Charge Rate.

The correct Fixed Charge Rate (FCR) number is 11.85%. The number of 11.58% identified in the explanation on page 17 under "Fixed Charge Rate" is a typographical error.

The Fixed Charge Rate has changed from numbers used in earlier RFPs to more closely match the type of project financing that is now being used by developers. Earlier FCRs were based on public financing or public utilities with different financial arrangements from those currently being used.

As noted on page 17 of the RFP under Attachment C, the Fixed Charge Rate includes construction financing, financing fees, return on debt and equity, depreciation, income tax, property tax and insurance. There is no detailed breakdown for each of these factors. The FCR is an equivalent number developed from a spread sheet.



No information is available on FCRs currently being used by competing technologies such as coal, natural gas or nuclear.

6. Intellectual Property:
If I pursue Technical Area 1, a Conceptual Design Study, I would like to retain protection of some of the information; can we identify a mechanism to accomplish that, such as publishing two volumes of the final report, and perhaps including some cost share in the project?

Answer: Intellectual Property.

Conceptual Design Studies are intended to be fully funded by NREL with results publishable at NREL's discretion. Granting of any intellectual property protection for contents of these studies will be negotiated on a case by case basis. A minimum 20% direct cost sharing by the offeror will be required if intellectual property protection is granted by NREL.

7. Multiple Entry Points:
How much confidence can we have in future "multiple entry points"? I am concerned that a highly successful Technical Area 1 Conceptual Design Study may meet with doors closed to proceeding further.

Answer: Multiple Entry Points.

The issuance of future RFPs (Multiple Entry Points) under the Low Wind Speed Turbine Project is dependent upon the continued support and funding for the project from Congress and DOE.

8. Multiple Proposals:
Please confirm my understanding regarding multiple proposals from a single offeror:
- a. one proposal can not span two or three technical areas
 - b. two proposals can address two different technical areas
 - c. two proposals can fall in the same technical area

Answer: Multiple Proposals

- a. A single proposal can only address a single one of the technical areas. The statement of work for Technical Area 3 "LWT Prototype Development" can include conceptual design studies, individual component tests and final systems integration, but must be submitted and will be evaluated as a single proposal.
- b. Multiple proposals can be submitted covering different technical areas.



c. Multiple proposals can be submitted covering the same technical area, such as multiple Component Designs.

9. We will be submitting a proposal for Technical Area I, the Conceptual Design Study, for the Low Wind Speed Turbine project. At present, we do not have the matching funds to qualify for Technical Areas II and III. However, we feel that we will be in a position to qualify for Technical Areas II and III within 6-8 months. Do we need to submit proposals for Technical Areas II and III by January 15, 2002 to be considered for funding within the next year, or is NREL planning to accept the next round of proposals addressing Technical Areas II and III in less than a year? To word it another way, if our Technical Area I proposal is approved for funding, can we then submit proposals for Technical Areas II and III sometime in early 2002 and receive funding consideration before January of 2003?

Answer: See item 8 above. We can not commit to any future funding opportunities. If you wish to compete for any technical area, then you must submit a proposal.

Information on Certification, as originally mentioned in the Statement of Work on page 8, may now be found at NREL's web site www.nrel.gov/wind/, by clicking on "Certification Process & Guidelines", near the bottom of the page.

The due date for submittal of proposals remains unchanged (01/14/02).

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Contract Administrator

